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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/729,033	12/04/2003	Chung-Ling Wu	67,200-1183	8859

7590

07/14/2006

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EXAMINER
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HRUSKOCI, PETER A

ART UNIT	PAPER NUMBER
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1724

DATE MAILED: 07/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/729,033	<b>Applicant(s)</b> WU ET AL.	
	<b>Examiner</b> Peter A. Hruskoci	<b>Art Unit</b> 1724	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 30 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

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Claims 1-16 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claims contain subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention. In claims 1 and 9 “to reduce an amount of precipitate forming additive required”, “configured to add an additive” and “without overflow of said wastewater”, and in claim 9 “said outlet portion configured for adding a second additive” lack clear antecedent basis in the specification as originally filed, and appear to be drawn to new matter.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rice 2,640,807 in view of the Admitted Prior Art disclosed on pages 6 and 7 of the instant specification. Rice disclose (see col. 4 line 24 through col. 8 line 2) the structure of the system substantially as claimed. It is submitted that outer shell 90 in settling tank C appears to include a reaction tank, and utilizes reagents or additives to aid in precipitation of a sludge. The claims differ from Rice as applied above by reciting that the system includes a specific holding tank, reaction tank, additives, effluent collection tank, and storage tank. The Admitted Prior Art discloses that it is known in the art of water treatment to include the recited tanks and additives, to aid in controlling the flow of wastewater to a reaction tank, precipitating particles from the wastewaters, and collecting and storing effluent from a clarifier. It would have been obvious to

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one skilled in the art to modify the system of Rice by including the recited tanks and additives in view of the Admitted Prior Art, to aid in controlling the flow of wastewater to the reaction tank, precipitating particles from the wastewaters, and in collecting and storing effluent from the clarifier. The use of a third collection tank would have been an obvious matter of choice in engineering design to one skilled in the art, depending on the specific wastewater treated and results desired, absent a sufficient showing of unexpected results.

With regard to applicants arguments concerning the above 35 U.S.C. 112 rejection, it is submitted that the instant specification does not appear the term “additive”, and appears to be drawn to a – coagulant polymer – as disclosed on page 8.

Applicants argue that Rice teaches a continuous flow reactor system for treating liquid waste, which an artist of ordinary skill clearly understands is very different and works by a different principle of operation from a batch reactor system. It is submitted that the structure of the reactor system disclose in Rice does not appear to be limited to continuous operation, and would appear to be capable of batch operation. It is further submitted that the Admitted Prior Art as applied above, appears to be drawn to a batch reactor system. Furthermore, applicants have not submitted sufficient factual evidence to support the above argument.

Applicants argue that nowhere does Rice disclose or suggest forming precipitates, removing particles or precipitates from wastewater, or adding an additive that forms precipitates in a batch reactor without overflow. It is submitted that the lime added to conditioning tanks A and B of Rice appears to form precipitates and particles in the form of sludge in the conditioning tanks. It is further submitted that batch reactor tank 20 of the Admitted Prior Art utilizes a batch reactor without overflow.

Applicants' citation of case law has been carefully considered but is not deemed pertinent due to the different circumstances involved in the instant application.

Applicants allege that the downcomers and overflow portions are commonly used in continuous flow reactors as taught in Rice, and such structures are inconsistent with the principle of operation of batch reactors as one of ordinary skill in the art would readily recognize. It is submitted that the downcomers and overflow portions disclosed in Rice are not excluded from the instant claims. It is further submitted that the Admitted Prior Art as applied above appears to utilize a batch reactor for forming a precipitate in combination with a clarifier for separating a precipitate from a batch of wastewater as recited in the instant claims. Furthermore, applicants have not presented sufficient comparative evidence with the above prior art to support the above allegation.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter A. Hruskoci whose telephone number is (571) 272-1160. The examiner can normally be reached on Monday through Friday from 6:30AM-4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on (571) 272-1166. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Peter A. Hruskoci  
Primary Examiner  
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7/6/06